AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for reducing cross-polarization interference in a wireless communication system, comprising:

generating first data to be transmitted from a first transmission terminal;

encoding the first data with a long code at the first transmission terminal to produce a first long-encoded signal;

applying a first polarization to the first long-encoded signal to produce a first long-encoded, polarized signal; and

transmitting the first long-encoded, polarized signal from the first transmission terminal to at least one destination,

wherein the encoding the first data with the long code at the first transmission terminal comprises utilizing an identical long code also employed by a second transmission terminal transmitting signals having an opposite polarization to the first polarization.

2. (Previously Presented) The method of claim 1, further comprising:

orthogonalizing the first data transmitted by the first transmission terminal with respect to second data transmitted by the second transmission terminal .

3. (Previously Presented) The method of claim 2, wherein the orthogonalizing further comprises:

applying a first spreading code to the first data, originating from the first transmission terminal, to generate a first spread signal, wherein the first spreading code is distinct from a second spreading code utilized by the second transmission terminal to generate a second spread signal from the second data.

4-6. (Cancelled)

7. (Previously Presented) The method of claim 3, wherein the applying the first spreading code further comprises applying a first Walsh code, assigned to the first transmission terminal, to generate the first spread signal, wherein the first Walsh code is distinct from a second Walsh code assigned to the second transmission terminal.

8. (Previously Presented) A method, comprising:

receiving a signal, via an antenna;

dividing the signal received into a first signal, transmitted from a first transmission terminal, and a second signal, transmitted from a second transmission terminal, wherein the first signal and the second signal have opposite polarizations with respect to one another;

applying an identical long code to the first signal and the second signal to generate a first decoded signal and a second decoded signal, respectively;

applying a first orthogonal code to the first decoded signal to produce a first output signal corresponding to the first signal transmitted from the first transmission terminal; and

applying a second orthogonal code to the second decoded signal to produce a second output signal corresponding to the second signal transmitted from the second transmission terminal.

9-12. (Cancelled)

13. (Previously Presented) The method of claim 8, further comprising:

generating a first in-phase signal component and a first quadrature signal component of the first signal; and

performing respective pulse shaping operations on the first in-phase signal component and the first quadrature signal component.

14. (Cancelled)

15. (Previously Presented) A computer-readable storage medium having stored thereon computer-executable instructions that, in response to execution, cause a computing device to perform operations, comprising:

encoding first data with a long code to produce a first long-encoded signal;

applying a first polarization to the first long-encoded signal to produce a first long-encoded, polarized signal; and

transmitting the first long-encoded, polarized signal to at least one destination,

wherein the encoding the first data with the long code comprises utilizing an identical long code employed by a disparate computing device to transmit, with an opposite polarization from the first polarization, second data.

16. (Cancelled)

17. (Previously Presented) A computer-readable storage medium having stored thereon computer-executable instructions that, in response to execution, cause a computing device to perform operations, comprising:

receiving a signal via an antenna;

dividing the signal received into a first signal, which is transmitted from a first transmission terminal, and a second signal, which is transmitted from a second transmission terminal, wherein the first signal and the second signal have opposite polarizations with respect to one another;

applying an identical long code to the first signal and the second signal to generate a first decoded signal and a second decoded signal, respectively;

applying a first orthogonal code to the first decoded signal to produce a first output signal corresponding to the first signal transmitted from the first transmission terminal; and

applying a second orthogonal code to the second decoded signal to produce a second output signal corresponding to the second signal transmitted from the second transmission terminal.

18. (Previously Presented) A transmission terminal configured to reduce cross-polarization interference, comprising:

a long code generator configured to generate a long code, wherein the long code generated is identical to a second long code employed by a disparate transmission terminal

transmitting signals having opposite polarization to a polarization utilized by the transmission terminal;

a mixer configured to encode data with the long code to produce a long-encoded signal;

a polarizer configured to apply the polarization to the long-encoded signal to produce a long-encoded, polarized signal; and

a transmitter configured to transmit the long-encoded, polarized signal to at least one destination.

19. (Cancelled)

20. (Previously Presented) A receiver, comprising:

an antenna configured to receive a signal that includes a first signal transmitted from a first transmission terminal and a second signal transmitted from a second transmission terminal, wherein the first signal and the second signal have opposite polarizations with respect to one another;

an ortho-mode transducer configured to separate the first signal and the second signal based on respective and opposite polarizations, respectively associated with the first signal and the second signal;

a first mixer configured to apply a long code to the first signal to produce a first decoded signal;

a second mixer configured to apply the long code, identical to the long code applied by the first mixer, to the second signal to produce a second decoded signal;

a third mixer configured to apply a first orthogonal code to the first decoded signal to produce first data that originates from the first transmission terminal; and

a fourth mixer configured to apply a second orthogonal code to the second decoded signal to produce the second data that originates from the second transmission terminal.

21. (Previously Presented) A transmission system, comprising:

means for encoding first data, generated at a first transmission terminal, with a long code to produce a first long-encoded signal;

means for applying a first polarization to the first long-encoded signal to produce a first long-encoded, polarized signal; and

means for transmitting the first long-encoded, polarized signal to a receiver,

wherein the means for encoding the first data further comprises means for utilizing an identical long code to that employed by a second transmission terminal configured to transmit signals having an opposite polarization to the first polarization.

22. (Previously Presented) The transmission system of claim 21, further comprising:

means for orthogonalizing the first data to be transmitted by the first transmission terminal with respect to second data configured to be transmitted by the second transmission terminal.

23. (Previously Presented) The transmission system of claim 22, wherein the means for orthogonalizing further comprises:

means for applying a first spreading code to the first data, originating from the first transmission terminal, to generate a first spread signal, wherein the first speading code is distinct from a second spreading code utilized by the second transmission terminal to generate a second spread signal from the second data.

24. (Cancelled)

25. (Previously Presented) The transmission system of claim 23, wherein the means for applying the first spreading code further comprises means for applying a first Walsh code, assigned to the first transmission terminal, to generate the first spread signal, wherein the first Walsh code is distinct from a second Walsh code assigned to the second transmission terminal.

26. (Previously Presented) A receiver system, comprising:

means for receiving a signal;

means for separating the signal received into a first signal, which is transmitted by a first terminal, and a second signal, which is transmitted by a second terminal, wherein the first signal and the second terminal have opposite polarizations with respect to one another;

means for applying an identical long code to the first signal and the second signal to produce a first decoded signal and a second decoded signal, respectively;

means for applying a first orthogonal code to the first decoded signal to produce a first output signal corresponding to the first signal transmitted from the first terminal; and

means for applying a second orthogonal code to the second decoded signal to produce a second output signal corresponding to the second signal transmitted from the second terminal.

27-28. (Cancelled)

29. (Previously Presented) The receiver system of claim 26, further comprising:

means for generating a first in-phase signal component and a first quadrature signal component of the first signal; and

means for performing respective pulse shaping operations on the first in-phase signal component and the first quadrature signal component.

30. (Cancelled)